

24-0120013A
June 28, 2021

Christopher McGoldrick
Town Planner
Town of Grafton, MA
30 Providence Road
Grafton, MA 01519

Re: **Village at Grafton Woods**
Response to Traffic Impact Study Peer Review Comments

Dear Chris:

Tighe & Bond expects to receive supplemental Peer Review Comments from MDM Transportation Consultants, Inc. (MDM), on June 28, 2021. The peer review comments apply to the Traffic Impact and Access Study (TIAS), dated April 2021 and Response to Traffic Impact Study Peer Review Comments, dated May 28, 2021, prepared for the Village at Grafton Woods Development. The following comments were provided to us via email on June 14, 2021, and we understand they are the outstanding comments relative to the Traffic Impact Study. The following presents our response to those concerns.

Peer Review Response

As previously noted, Tighe & Bond has conducted the Traffic Impact Assessment in accordance with industry standard practices and The Town of Grafton Zoning By-Law, Section 8, Subsection 8.2: "Traffic Study Required" and Subsection 8.3 "Adequate Traffic Capacity", October 2019.

The TIAS finds that the additional traffic expected to be generated by the development will not significantly impact traffic operations within the study area and the conclusion remains valid with the additional information presented in response to the peer review comments.

Response to Comments

The following are responses to the comments provided by MDM via email. Tighe & Bond is responding specifically to the sections noted in the email dated June 14, 2021:

Existing Conditions:

5. Sight Distances:

Comment: *Sight lines looking south from the southerly driveway cross over a "no disturb" zone within which trees/vegetation exists or has potential to grow over time and impede sight lines. Likewise, it is unclear whether the guard rail elevation along the east side of Pine Street which may exceed 2 feet in height above roadway grade remains a potential visual obstruction to an object 2 feet above grade at the ped crossing and driveway location. Accordingly, MDM advises that the Site Plans as stamped by a professional engineer depict the sight line triangles at each driveway with a note that acknowledges compliance with applicable sight line criteria within these sight line triangles following AASHTO guidance, with a provision for clearing/maintenance of vegetation or modification of guardrail as required will be conducted to ensure applicable*

sight line criteria are met. Applicant should clarify to what extent clearing/maintenance of vegetation within the "no disturb" zone is feasible should such clearing/maintenance be necessary.

Response: While the sight line at the southern Site driveway looking south on Pine Street is shown to impede on the 25-foot no-disturbance buffer zone, a review of current conditions indicates there is no evidence of vegetation within the buffer zone that would obstruct the sight distance shown. The removal of vegetation is expected to be completed as part of the site development up to the buffer zone to maximize sight distances, as discussed in the previous response.

While no impacts to sight distance are anticipated due to existing vegetation at this time, the Town of Grafton Conservation Commission approved the future trimming and maintenance of vegetation within the wetland buffer zone, if it is necessary, to maximize sight lines at their June 15, 2021 meeting. A note has been added to Figures 16 to 19 to indicate this condition of approval. Figures 16 to 19 also include notes concerning the sight distance standards used, as well as reporting the available sight distances at both driveways looking in both directions.

The approximate location of the existing guiderail is now shown on the sight distance profiles at the southern driveway (Figure 19). As shown in the figure, the guiderail is not expected to impact either the available intersection and stopping sight distances.

Recommendations/ Conclusions:

11. Pedestrian Improvements:

Comment a: *Design and placement of RRFB equipment should be in accordance with guidance published in the Manual on Uniform Traffic Control Devices (MUTCD). Responsible party for maintenance of the RRFB equipment and costs to operate the RRFB (whether through replacement of battery backup as needed if solar-powered or cost of electricity if hard-wired) should be explicitly acknowledged.*

Design and placement of radar speed feedback signs should be in accordance with guidance published in the MUTCD; responsible party for maintenance and operating costs for these signs should be explicitly acknowledged.

Response: Both the RRFB and radar speed sign equipment will follow all applicable MUTCD standards and additional design details have been added to the attached plans. Additional information and details to meet MUTCD requirements will be prepared as the design progresses. The location and details of the proposed RRFB and radar speed equipment will be coordinated with the Grafton Department of Public Works and will be provided to the Board prior to construction.

Ownership and maintenance responsibility of the RRFB and speed radar feedback signs will be coordinated with the Town of Grafton Department of Public Works.

Transportation Demand Management (TDM) Programming:**13. TDM Programming:**

Comment: *MDM defers to Town policy on formalizing a TDM program for projects located in town; while we acknowledge the proximity to the MBTA commuter rail and its likely benefits it is the experience of MDM on similarly located TOD developments that a TDM program is typically memorialized as part of site plan approvals to include specific actions as outlined in our initial review including but not limited to transit use incentives, ride matching promotion, publication of transit routes/schedules (including possibility of a real-time transit informational screen in the building lobby), etc.*

Clarification of how many spaces at the site may be made available for monthly lease for T parking should also be provided to ensure sufficient spaces are regularly available to support the commercial uses at the property.


Response: Specific TDM measures will be coordinated with the Town and included as a condition of planning board approval, if required.

Of the proposed parking near the retail portion of the site, 60 parking spaces are required for the retail use per Grafton Zoning Regulations. The remainder of the parking spaces in this area will be available for MBTA use.

Based on the information and feedback provided to date, the contents of this submission, and the discussions held with the Planning Board, we believe that all outstanding items concerning the traffic engineering for the project have been addressed and coordination with the Town will continue during the progression and detailed design of the project as indicated in our documentation. Please contact us if you have any questions.

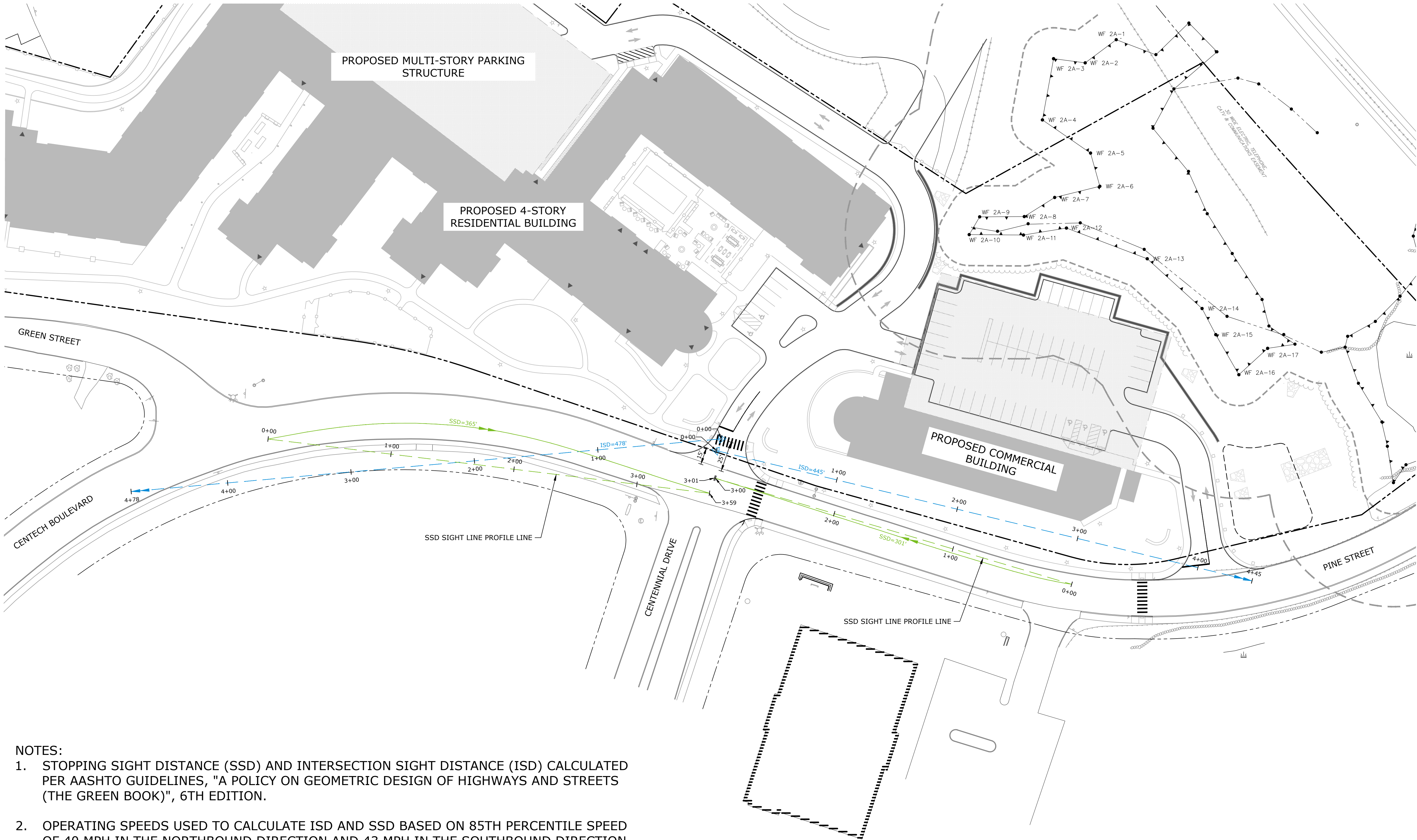
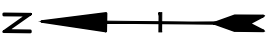
TIGHE & BOND, INC.


Jean E Christy, PE
Senior Engineer

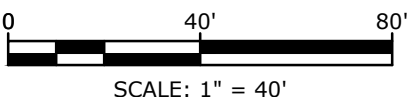

Christopher O. Granatini, PE
Vice President

Enclosures: Sight Lane Plan and Profile (Figures 16 to 19, Dated Revised 06/25/2021)

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- NOTES:
1. STOPPING SIGHT DISTANCE (SSD) AND INTERSECTION SIGHT DISTANCE (ISD) CALCULATED PER AASHTO GUIDELINES, "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS (THE GREEN BOOK)", 6TH EDITION.
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 3. AVAILABLE SIGHT DISTANCE ESTIMATED USING AVAILABLE AERIAL MAPPING, EXISTING SITE SURVEY, AND PROPOSED SITE PLAN LAYOUT.
 4. APPLICANT TO WORK IN COORDINATION WITH THE TOWN TO CLEAR AND MAINTAIN VEGETATION THAT MAY IMPACT SIGHT DISTANCE.



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GSX-ODG, LLC

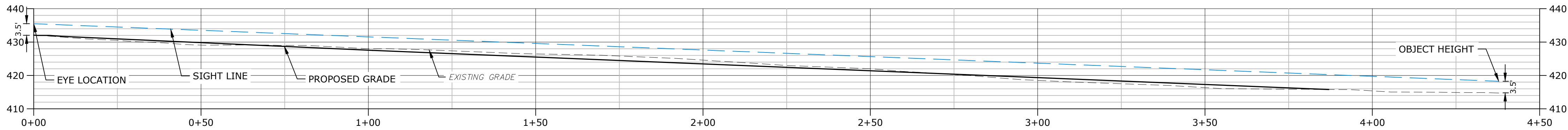
Grafton,
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1	06/25/2021	PEER REVIEW REVISIONS
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DATE:		05/25/2021
FILE:		240120-013A-C-Sight Distances.dwg
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APPROVED BY:		COG

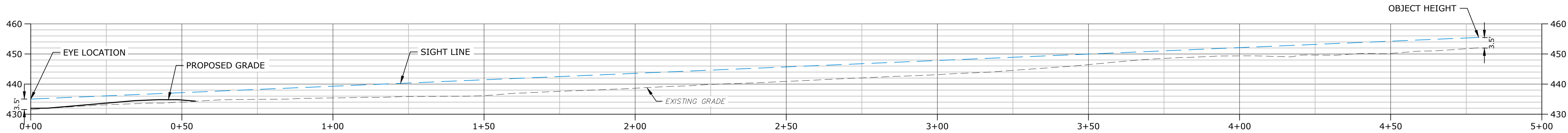
NORTHERN SITE DRIVEWAY
SIGHT DISTANCES

SCALE: 1" = 40'

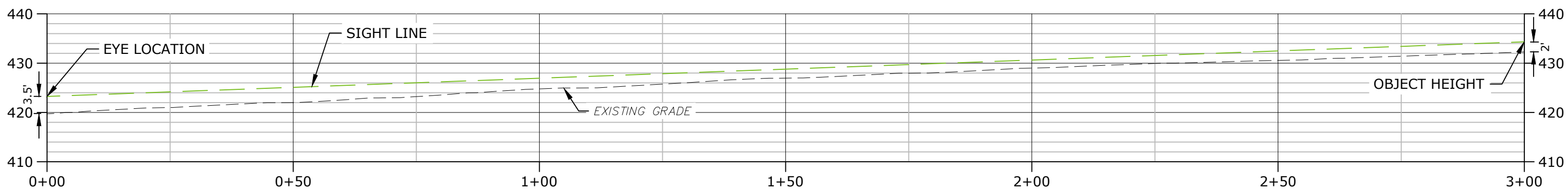
FIGURE 16



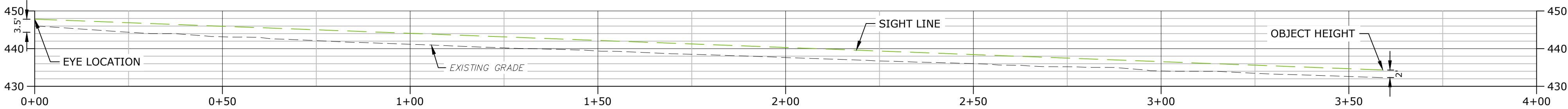
NORTHERN SITE DRIVEWAY ISD (LOOKING LEFT - SOUTH)



NORTHERN SITE DRIVEWAY ISD (LOOKING RIGHT - NORTH)



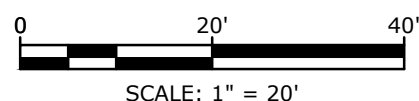
NORTHERN SITE DRIVEWAY SSD (NORTHBOUND)



NORTHERN SITE DRIVEWAY SSD (SOUTHBOUND)

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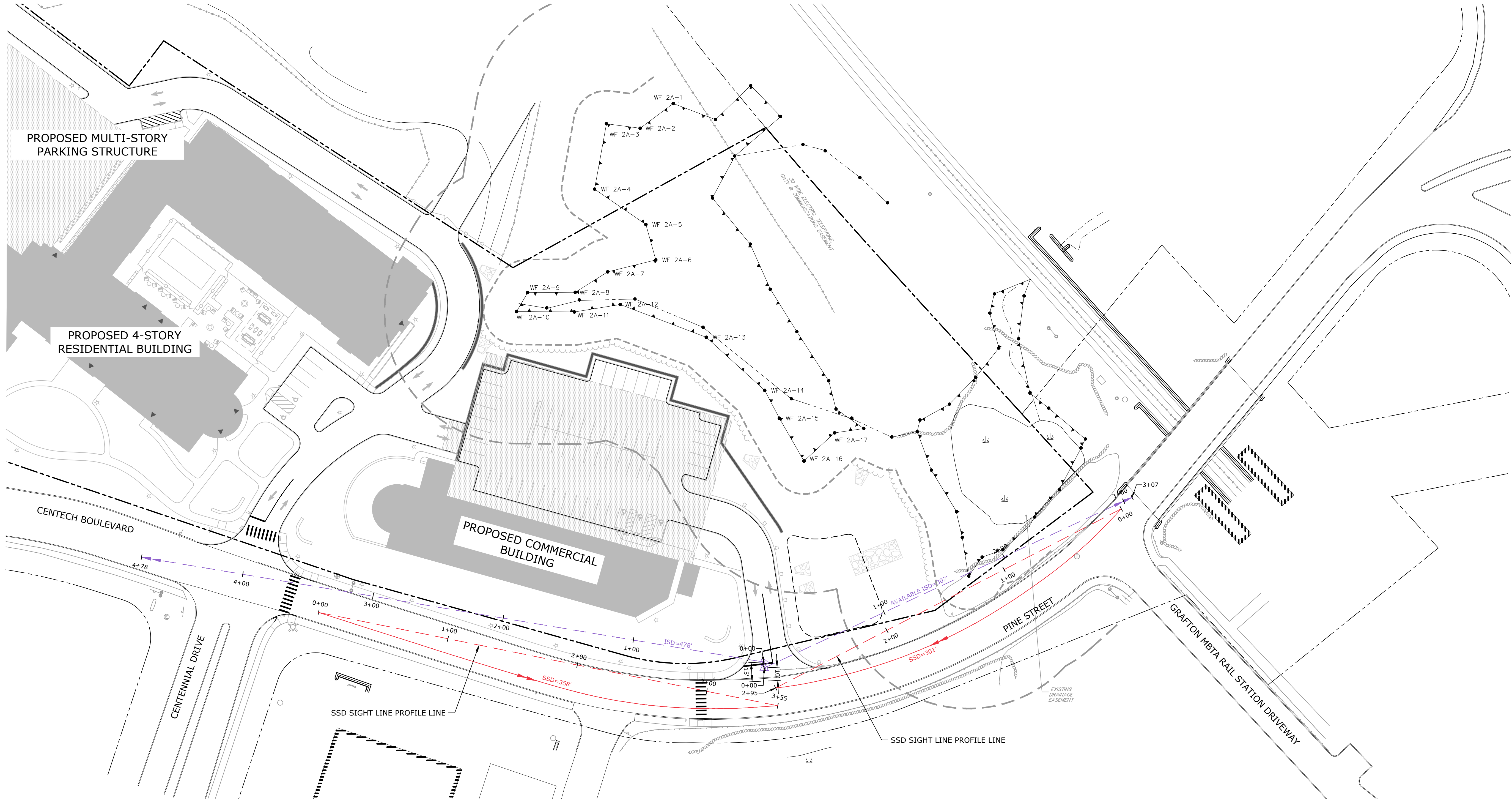
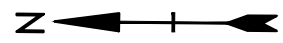
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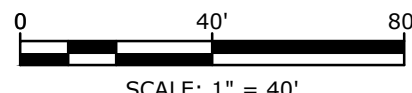
NORTHERN SITE DRIVEWAY
SIGHT DISTANCE PROFILES

SCALE: 1" = 20'

FIGURE 17



- NOTES:
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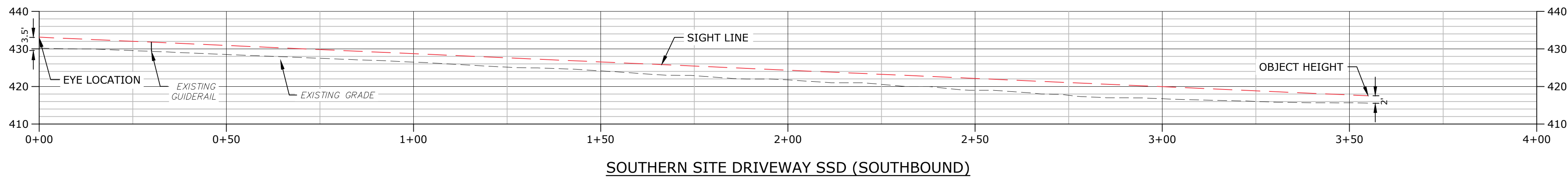
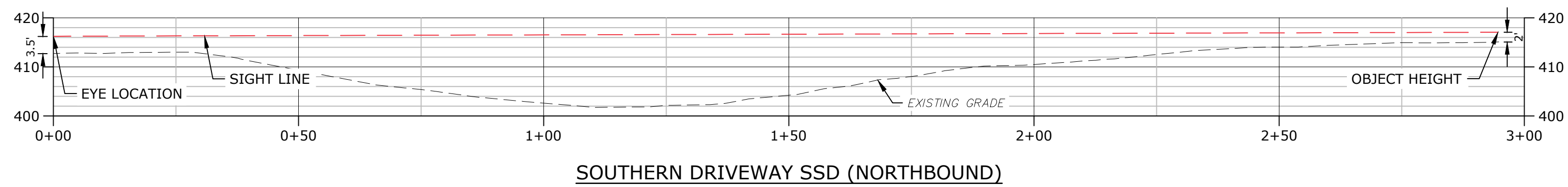
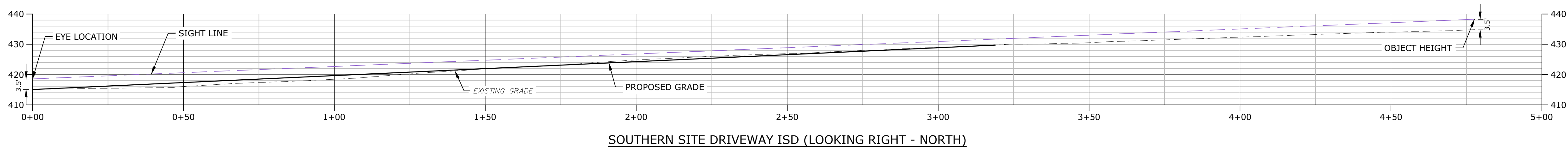
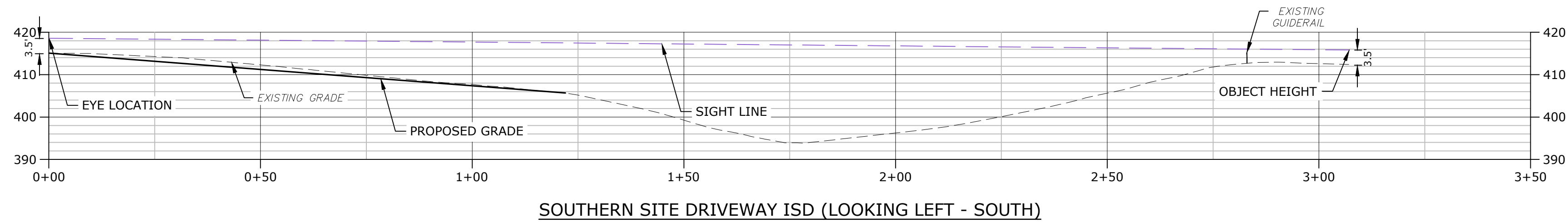
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SOUTHERN SITE DRIVEWAY
SIGHT DISTANCES

SCALE: 1" = 40'

FIGURE 18



NOTES:

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SOUTHERN SITE DRIVEWAY
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SCALE: 1" = 20'

FIGURE 19

